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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/978,369 | 10/16/2001 | Maria Yuang | 13612-003001 | 4202 |
| 26161 | 7590 | 06/15/2005 | EXAMINER | |
| FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110 | | | MERED, HABTE | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2662 | |
| DATE MAILED: 06/15/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 09/978,369 | | YUANG ET AL | |
| | Examiner | | Art Unit | |
| | Habte Mered | | 2662 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claims 1 and 5 are objected to because of the following informalities:

In claim 1, the reference to the acronym RB needs to be expanded and placed in parenthesis next to the reference of RB in claim 1. According to the specification on page 5, on the 1st line, RB means Reservation Bandwidth.

In claim 5, one of the references to the two instances of the phrase "for supporting" needs to be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 1-6** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

4. In **claim 1**, item B, referring to the phrase "...maximum-sized frame satisfying the most stringent quality of service requirement...", the specification does not describe this feature in sufficient detail to enable one skilled in the art to determine how a maximum-sized frame can satisfy the most stringent quality of service requirement. The

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specification does not provide any instruction or direction on how a maximum-sized frame can meet the requirement of the most stringent quality of service. An apparent attempt to explain this limitation on page 5, Lines 9-11 of the specification simply restates the limitation as "... , prior to the beginning of frame n, it determines the maximum frame size $F_{max}(n)$ in accordance with the current most stringent QoS delay/throughput requirement." However, one skilled in the art cannot determine to whom Applicant is referring to as "it" in the phrase just cited from page 5, Lines 9-11 of the specification. After a thorough review of the specification and drawings, one skilled in the art will find the specification fails to adequately describe the following:

- (a) the entity responsible for determining the maximum frame size
- (b) how the frame size is determined based on the stringent quality of service
- (c) how the maximum-sized frame satisfies the most stringent quality of service
- (d) how and on what basis is the most stringent quality of service selected

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 1-6** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. In **claim 1**, item B, the definition of the favorable bandwidth is vague and incorrect. The claim language used to define the favorable bandwidth "...a bandwidth capable of being allocated by remaining unreserved bandwidth of a ..." clearly refers to

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one bandwidth allocating bandwidth to another bandwidth and is incorrect and confusing.

Also in **claim 1**, item B, the phrase "...maximum-sized frame subtracted by allocated reservation bandwidth;..." is incorrect and lacks clarity since a given bandwidth cannot subtract any item from a frame.

Also in **claim 1**, item C, the phrase "...actual bandwidth allocation for being input to the neural fuzzy ..." is vague and lacks clarity as one skilled in the art cannot determine the scope of the actual bandwidth allocation. It is not clear if the actual allocated bandwidth is referring to the reserved bandwidth or to the unreserved bandwidth or to the total bandwidth of the frame.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Habte Mered whose telephone number is 571 272 6046. The examiner can normally be reached on Monday to Friday 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571 272 3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HM
06-02-2005



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